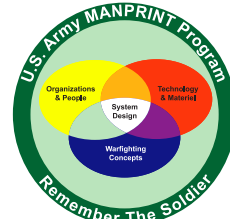# MANPRINT
Newsletter

Fall/Winter 2003

The Director's Corner

Since the last Newsletter, the Army's most important program, the Future Combat System (FCS), has been approved for Milestone B. Congratulations to the MANPRINT community for their hard work that has contributed to this success. Many difficult, but potentially rewarding years lie ahead as we move towards the next Milestone.

The new Chief of Staff, GEN Schoomaker, has indicated that he expects many of the advances made during the SDD phase of FCS to be transitioned to the current force. He has also established a new Office of the Rapid Equipping Force to take technologies that are ripe and quickly bring them into the Force. Both of these initiatives point to the importance of MANPRINT's continuous involvement with programs. I expect that the MANPRINT community will be expected to quickly react to bring our expertise to transitioning systems and technologies. We need new tools for doing better MANPRINT analyses, better interfaces on existing tools so they can be applied faster, and tools that can speak to one another to better address the "integration" part of MANPRINT.

The best way of developing or revising tools is through research. We are now working on acquiring research funds whose purpose will be to examine areas of commonality in unmanned air vehicles (UAVs). In FCS, four UAVs are planned and it would be beneficial if these systems had as much in common as possible, consistent with their different missions. We are also looking for funds to hold a workshop on UAV MANPRINT issues. This workshop would include tri-Service participation.

The Army Science Board is instituting a new study that, at least initially, seems like an appropriate place to call for improved MANPRINT tools. I am also encouraged by the vigor of the other Services in pursuing their own MANPRINT programs. I optimistically believe these programs will be supported by appropriate research efforts.

In our Professional Development evolutionary process, we are proud to announce that the United States Army Logistics Management College has rolled out an updated and condensed MANPRINT Course which will satisfy more prospective practitioners' and managers' requirements.

In other news, our office will be represented at the Winter AUSA meeting during March in Fort Lauderdale, FL. This meeting gathers a large contingent of acquisition specialists and we plan to bring the MANPRINT story to them. This office has been absent from this meeting in recent years, but we look forward to returning. We will have a booth at the meeting. If you attend, please visit.

Michael Drillings
Acting Director for MANPRINT

Contents...

MANPRINT in Future Combat System (FCS) Program

By David M. Harrah, Chief Crewstation Branch
U. S. Army Research Laboratory
Human Research and Engineering Directorate

Come Early - Stay Late

For as long as I can remember, MANPRINT people have been making statements such as "If only the Program Manager had gotten us involved sooner…" or "All we can do is minimize the damage; they won't take any of the big changes we recommended because of cost."

The good news is that most components of MANPRINT have been present in the FCS program from the beginning, almost 4 years ago. The title "MANPRINT" did not exist until this phase (System Design and Development [SDD] Phase) when the Army assumed full control. DARPA's emphasis was on technology rather than the Soldier, which made it difficult at times to conduct a true MANPRINT program. However, the Human Dimension Integrated Product Team (IPT) filled the role of MANPRINT during Concept and Technology Development (CTD) Phase, although mainly as a mechanism to prepare for the much larger SDD Phase. The MANPRINT program is still undergoing growing pains like most of the program but should be around for the duration.

System of Systems (SoS)

FCS is the first true SoS program the Army has ever pursued. FCS includes the Command, Control Computers Communications Intelligence Surveillance and Reconnaissance (C4ISR) network, the ground combat vehicles, unmanned ground and air systems, unattended sensors, the soldier, and the integration activities to make these systems work together in a Unit of Action (UA) comparable in combat capability to a current brigade. In addition, interoperability with a wide variety of systems (known as complementary systems) outside of the FCS program is a key requirement. Complementary systems include programs such as Land Warrior, Joint Tactical Radio System, and Warrior Information Network – Tactical. At the platform level, we have many previous examples of MANPRINT work to learn from, such as Crusader, Abrams, Bradley, Comanche, and Stryker. At the SoS level, we are breaking new ground. Consequently, we are playing "catch-up" across all seven domains to impact the program at the SoS level to determine whether this smaller force of 2,500 to 2,900 Soldiers can perform all their required tasks and survive.

Partners

Starting with the CTD phase, the Army formed a partnership with a Lead Systems Integrator (LSI) comprised of Boeing and SAIC. The LSI has the job of integrating all the systems into an SoS. In this role, they really function as a quasi-government organization, and we (Government personnel) are partners with the LSI. This arrangement is not without precedence; the Ground-Based Mid-Course Defense system has used the LSI concept but not on a scale comparable to FCS. Land Warrior is using a variation on this theme with a Lead Technical Integrator. Consequently, some adjustment in approach from traditional program structure has been necessary, especially since DoD 5000 series was first abolished, revised, and then reinstated during CTD. The program milestones in the 5000 series are usually applied to a single system. In FCS, the normal milestones are multiplied many times over to achieve the SoS review required. We are in the process of determining which events are appropriate for MANPRINT participation. In addition, the role of Government personnel is somewhat different. When the Government has unique capabilities to offer, those functions will be funded from the program but generally through the LSI, not the Program Manager's office.

FCS Speed

Within the program, we refer to "FCS Speed". This means that everything occurs at the same time, has a top priority, must be completed before everything else but depends on everything else, and was due months ago. In the 14-month CTD phase, we were working the System MANPRINT Management Plan, Operational Requirements

Document, Organizational and Operational Plan, Test and Evaluation Master Plan, all MANPRINT feeder assessments, 23 statements of work and specifications, supporting analyses and demonstrations, and participating in early vehicle designs - all simultaneously. In addition, prior to the start of CTD, the program was initially shortened by 2 years and then 18 months later, right before Milestone B, extended 2 years. FCS Speed places great strain on availability of personnel resources, which to date have not kept pace with program demands. For example, a 4-year SDD followed by 4 years of limited production and evaluation in order to meet an Initial Operational Capability (IOC) by 2012 creates a formula for a very busy program.

Management by Surprise
No matter how hard you try, there seem to be program activities you were not aware of, meetings that you were not told about, or suspenses you did not even know you had to meet. The FCS term for this is "Management by Surprise." The program goal is to reduce or eliminate this roadblock to program execution through better coordination and use of the Advanced Collaborative Environment (ACE). This will not be a trivial task. As with all major acquisition programs, FCS uses Integrated Product Teams (IPTs). There are 15 "Tier 3" – the third level in the organizational structure - IPTs; these are the primary places where the work is done. Roughly half work at the systems level and half at the SoS level. There are dozens of sub-IPTs, each of which holds telecons and "webexes" (telecon meetings where the briefing slides can be viewed over the internet) as well as traditional face-to-face meetings. As a result, it is very difficult to keep pace with all the program's meetings, review all the documentation placed on the ACE, and provide input in a timely manner.

Where MANPRINT Calls Home
The MANPRINT team is at the SoS program level and resides in the Specialty Engineering section of System of Systems Engineering and Integration (SSEI) IPT.

The team will serve two functions: (1) define, coordinate, and execute the MANPRINT program, and (2) define the MANPRINT SoS requirements. Manpower, Personnel, and Training (MPT) responsibility will reside in SSEI, although significant coordination efforts will occur with Training Systems IPT, Force Development IPT, Logistics IPT, and other MANPRINT domains. Soldier survivability will reside within the overall survivability program that is under Specialty Engineering within SSEI. Similarly, Environmental Safety and Occupational Health (ESOH) resides within Specialty Engineering as well. Working groups will supplement the expertise within each segment of the MANPRINT program. ESOH, Integrated Survivability, MANPRINT, and Human Factors Working Groups are presently developing a charter. An MPT Working Group will probably be chartered as well within the next several months. In addition, the workload at the Tier 3 IPTs systems level will be carried by MANPRINT-related personnel within some of those IPTs while SSEI will provide the support to the rest.

Soldier-System of Systems Challenge
FCS probably presents the largest MANPRINT challenge ever in an Army acquisition program. The Operational Requirements Document lists more than 550 numbered requirements, of which some 400+ impact the soldier. Compared to the current force, there are fewer soldiers in a UA available than in a current brigade. In addition, FCS requires soldiers to:

- operate a larger number of systems per soldier,
- learn and use many new types of systems,
- manage systems generating far greater volumes of information at an exponentially faster pace,
- perform more cognitively-intensive functions while vehicles are in constant motion,
- maintain more systems with fewer maintainers with less support structure,
- operate over much greater distances,
- depend on and use embedded training to acquire new skill sets,
- acquire greater combined arms skills at lower echelons and possibly new combinations of skills,
- place much greater trust in networks to keep them alive,

- perform all duties without degradation over 3 days of intensive combat during a wide range of environmental conditions immediately after deploying over a 4 day period.

The SoS design must meet these challenges within the cognitive and physical limitations of the future Soldier. However, we have seen no evidence that soldiers will acquire superhuman capabilities during the course of this program. The future Soldier looks much like today's soldier. In fact, the future leaders of the first UAs just entered the Army.

What's in a Word

The word "Soldier" refers to the members of the U.S. Army and connotes all the different types of tasks, functions, and the roles they perform across dozens of countries. Phrases and words such as "Warfighter Machine Interface" and "Warrior" are sometimes intended to sound more fierce or more generic across services, I suppose, than "Soldier." That is all right, but I think it is absolutely essential to remember that the words "Soldier" and "marine" have tremendous history and deserve our respect. These words also embody a broad range of skills such as troubleshooting software, interpreting imagery, healing the wounded, fixing tires, and controlling unmanned systems, which are just as essential for the entire UA to achieve its objectives as "being fierce." This program places tremendous emphasis on all Soldiers' cognitive processing abilities and assumes that the Soldiers really will not be pointing weapons as much as current forces do. The network will do the pointing and shooting as well as the battle damage assessment. But if the FCS Soldiers cannot perform their role as part of this system of systems, then FCS does not provide this shooting capability, and the UA will not achieve its objectives.

The Problem and Solution are not the Same

Automation is another key theme of FCS, much like most current major acquisitions. Automation will take many forms, from fusion of diverse sensor feeds to pre-planning routes that vehicles follow in a semi-autonomous mode. Automation is typically seen as a solution to reducing Soldier workload. The problem is, when you have chopped a huge chunk of soldiers out of the brigade-equivalent size force from the start and add capabilities to each of the platforms and then add more things to operate, such as unmanned systems, by that smaller crew, you are not "reducing the Soldier's workload." The Soldiers operating FCS will only care about the workload required to control the system they are working with; comparisons to current systems will be of no interest to them. In addition, the research literature shows that over-automation results in serious system failures, especially by tired soldiers who have had no rest for 3 days. People are more situationally aware and perform better when they are actively involved in a process rather than merely being observers. FCS will have to find innovative ways to determine and balance the right level of automation before soldiers will trust their lives to the system.

The Future of Future Combat Systems

Over the next eight years, there will be many tough challenges for the MANPRINT community to overcome. One thing is for certain: technological miracles will not reduce the need for highly motivated, well trained, Soldiers. The MANPRINT slogan of "this Soldier with this training must perform this task to standard…" will be as true in 2012 when FCS is fielded as it is today. All domains of MANPRINT must be heavily involved and must find innovative approaches to system design if we are to achieve the 2012 IOC. Managing this large MANPRINT program will present daily challenges and require tremendous cooperation and collaboration across government, LSI, and supplier MANPRINT representatives if we are to optimize the resources available. Despite those growing pains I mentioned, there are many signs that the MANPRINT community is united behind a common goal of serving the Soldier. The program goal, therefore, will be to optimize the FCS around the mental and physical capabilities of the future Soldier as the key component.

Mr. David Harrah serves as the Government Lead for MANPRINT as a co-chair along with the LSI Lead, Mr. Stephen Merriman.

The Reading Grade Level (RGL) of a System Target Audience

By Daniel J. Imbs

The Reading Grade Level (RGL) is one of the single most important attributes which identifies the capabilities and limitations of soldiers and other personnel that are members of the target audience of a system. The impact is reflected in the ability of the target audience to read and understand information on computer screens, training and technical manuals (electronic or written).

Most acquisition systems have a target audience mix of soldiers from several functional proponents for the Military Occupational Specialties (MOS). The Functional Proponent and Materiel Developer (MD) must ensure that whatever training is developed to support the system is understood by all operators, maintainers, support personnel and the trainers. This is especially important when development of training materials is contracted out for development and fielded to Army training institutions. Sometimes contracted training developers and technicians inadvertently write training materials and on-line manuals to their level of reading comprehension capability.

The members of the operator MOS could have a RGL range of 8th to 12th grade and the maintainers have a 9th to 12th grade RGL range. Let us assume that the RGL average is 10th grade for the operators MOS and 10.5 for the maintainers. If the training manuals are written to the RGL average for the operators and maintainers then those members of the target audience with an RGL under fiftieth percentile of either MOS could have problems reading and comprehending training materials. If the training concerned safety or health hazard risks or issues in an acquisition system, and only sixty percent of the target audience comprehended the training instructions, one could assume that an accident is bound to occur.

Training materials, whether electronic or written, must reach the least capable to the most capable system operators, maintainers, supporters and trainers. No soldier should ever be left behind and that includes training materials that do not exceed capabilities.

When Commercial Off-the-Shelf (COTS) weapon or information systems are contemplated for acquisition, the training materials should be examined thoroughly for readability and consideration of the target audience that must operate, maintain, support and train the system. The issue is whether any Army training institution will have to rewrite training materials.

To illustrate this point I would like to share some extracts from an article that appeared in USATODAY for 3 Mar 03. "Study: Kids seat installation too tough for many adults."

"Instructions for installing child safety seats in cars are written in language too difficult for many adults to understand, researchers say. Such manuals are written at a 10th-grade reading level on average, according to a new study, while data suggest that nearly a quarter of U.S. adults read at or below a fifth-grade level, and at least 25% read at about an eighth-grade level."

"For liability reasons, lawyers usually are involved in writing installation instructions and legal jargon might make instructions sound confusing." "Manufacturers could help by writing installation instructions at a fifth-grade level, which literacy experts say is optimal for understanding health-related information."

As the Army builds new material and information systems it is important for the Materiel Developers and Contractors to know and understand the capabilities and limitations of the target audience. Each MOS of the target audience must be carefully examined to ensure that, when training manuals are written or automated, the most capable to the least capable soldier understands the information. Our weapons systems are becoming complex. The same technology that allows us to build new systems should be the same one that ensures the training is understood by all soldiers in an MOS. No soldier should ever be left behind. Soldiers are the centerpiece of system development.

Mission-Centric MANPRINT for Human Performance and Life Cycle Payoffs
By John Snow
Dynamics Research Corporation (DRC), Andover, MA

Overview
Application of Manpower Personnel Integration (MANPRINT) principles based on the missions and tasks of acquisition systems *throughout the life cycle* can further enhance system operational effectiveness. Today's performance-based approach for system acquisition management, e.g., fielding evolutionary capabilities, provides the Army with a unique opportunity to integrate and deploy its modernization systems with adaptive sets of human resources in consonance with the evolving force and mission requirements.

Army MANPRINT practitioners can capitalize on this evolving design and force environment with measures of effectiveness (MOEs) and human performance-based analyses predicated on system mission-tasks sets. This *mission-centric MANPRINT* concept, augmented with tailored technical metrics and analyses, can support deployment of incremental system capabilities and human resources linked to the emerging missions of the Army's future operational force.

A MANPRINT program structured to system baseline mission-tasks sets (operational templates) is feasible using present-day analytic tools, methods and processes. It can be leveraged from the Joint Chiefs of Staff (JCS) Joint Training System (JTS) and its Joint Training Information Management System (JTIMS) tool. System baseline missions and tasks are developed through the Universal Joint Task List (UJTL) and Joint Mission Essential Task list (JMETL) process. This is done in conjunction with the supporting Army Universal Task List (AUTL) – METL process and the JTIMS methodology to produce the task-based thread for system MANPRINT requirements and goals.

This approach can enhance human performance by matching MANPRINT requirements to operational capabilities. Mission-based MANPRINT solutions can then be aligned with tasks to meet life cycle operational effectiveness and affordability objectives. Pro-active management of system human resources and costs is possible based on the synergistic relationship established between operational mission-tasks sets and today's MANPRINT principles. This concept can also provide the Army with a value-added benefit: employment of the MANPRINT paradigm with the Army's operational forces.

Mission-Centric MANPRINT
Figure 1, *Mission-Centric MANPRINT*, portrays missions as the key enabler of MANPRINT requirements and human resources to optimize system capabilities. Adopting this concept can provide MANPRINT practitioners with method to structure system human performance to the Service's warfighting needs using human resources consistent with the baseline mission-tasks sets to be executed.
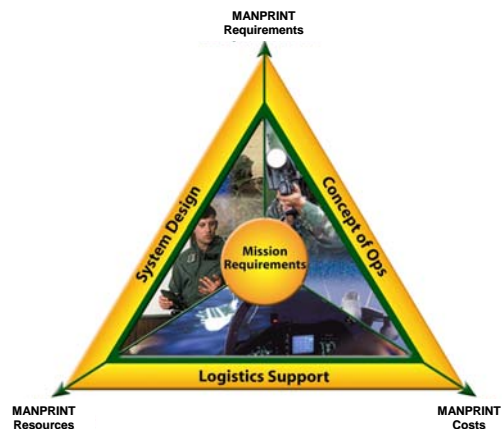

FIGURE 1. Mission-Centric MANPRINT

Mission Analysis Framework
Army MANPRINT was initiated in recognition that the human is an integral component of the total system - *if the human cannot perform efficiently, the entire system will function sub-optimally.* Implementing a mission-centric MANPRINT concept built upon operational missions and linked by tasks can ensure human performance considerations share equally in total system performance.

Furthermore, system performance is typically measured by operational mission performance, e.g., readiness, through the tasks to be performed by

assigned equipment and humans. An analytic framework to define system baseline mission-tasks sets for MANPRINT and human performance requirements would employ a proven mission analysis methodology.

The operational mission hierarchy in Figure 2, *Mission Analysis Framework with MANPRINT,* is created with the JTIMS tool methodology from the strategic force-level with missions from the UJTLs. Using mission analysis and Army Universal Task Lists (AUTLs), Mission Essential Task Lists (METLs) and Mission Training Plans (MTPs), a mission-to-task decomposition can be performed to the Service tactical level, e.g., platoon. *Products are the baseline tasks at the unit, system and individual levels to be performed.*

The JTS *"military training for readiness"* process in Figure 2 is employed by the JCS for joint training exercises to evaluate unit and system mission operational readiness. Unit conditions and standards are the effectiveness measures combatant commanders use to evaluate unit training performance (e.g., MANPRINT) vis-à-vis required operational capabilities. Conceptual roles are shown for system design impacts and the application of MANPRINT (human performance) analyses and assessments.

The integration of MANPRINT analysis and assessments with baseline mission-tasks sets support the identification of unit- and system-specific courses of actions (COAs). These are the COAs for commanders to address the MANPRINT and the human resource issues/shortfalls reported by unit training assessments to improve operational warfighting readiness.

MANPRINT Mission-Cost Integration
Achieving seamless MANPRINT integration is done through an analytic structure allowing for changes in the individual domains and system integration to be related to a common set of technical metrics. To influence system design and supportability, human performance analyses and assessments must relate changes to MANPRINT to two key acquisition metrics - *system effectiveness and cost.* When assessing MANPRINT impacts upon system effectiveness, *mission performance at the individual crew, unit and*
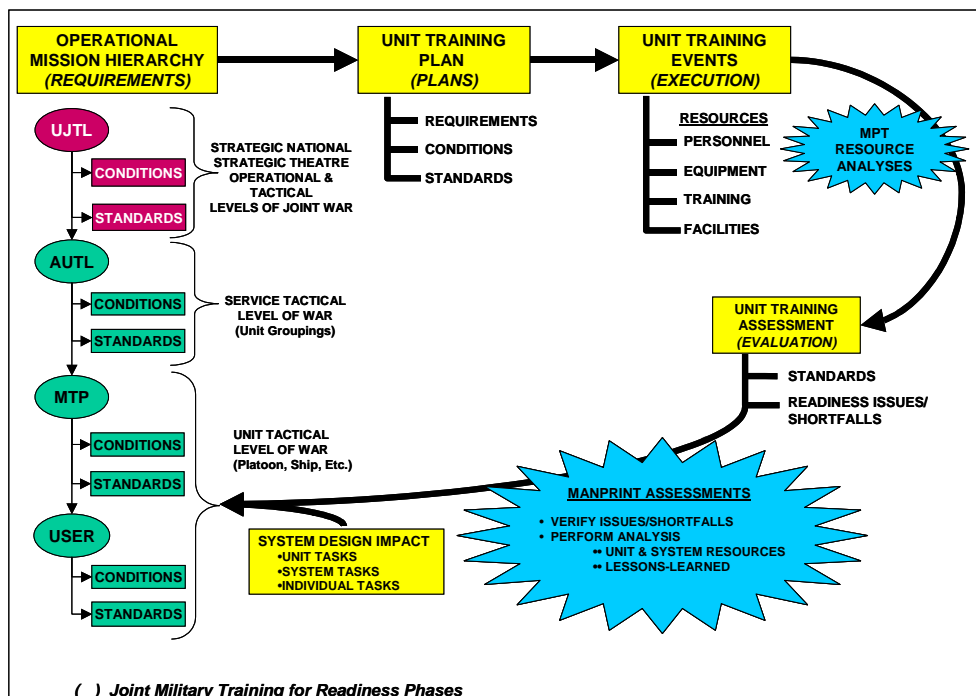

FIGURE 2. Mission Analysis Framework with MANPRINT

force levels must be evaluated. This requirement is the overriding rationale for a mission-centric approach to MANPRINT.

MANPRINT costs are derived by analyzing and estimating the incremental and total resources required for current and future operational forces, units, systems, functions and equipment. Acquisition costs are estimated for system initiation, fielding, operation, sustainment and retirement through the Program Life Cycle Cost Estimate (PLCCE) process.

To accurately measure system human performance and cost, a system MANPRINT analysis baseline is required. It is based on human resources and lessons-learned of legacy systems, system missions and MANPRINT requirements by domain and system integration. Available tools and methods are adapted to support a human performance-based MANPRINT application, to include a real-time analytic capability linked to the PLCCE. The interdependency of system human performance and cost is the relationship established between the system mission, MANPRINT and cost analyses: the MANPRINT analysis baseline.

MANPRINT Analysis Baseline

Mission-centric MANPRINT is analytically centered on an integrated set of Manpower, Personnel and Training (MPT) and human performance assessment tools, coupled with proven MANPRINT and mission analytic techniques. Conducting mission analysis generates the initial baseline tasks to trigger development of system MANPRINT requirements and human resources. An analytic decomposition of system missions is accomplished using the AUTL-METL process. A complete set of system-specific METLs then forms the foundation and analytic task link for a requirements-driven MANPRINT baseline. Use of MANPRINT analyses, assessments and metrics in tandem act as the aggregate human performance MOEs.

The task-based MANPRINT analysis baseline also derives system human resources and costs on an iterative basis throughout the entire life cycle. As shown in Figure 3, *Mission-Centric MANPRINT Analysis Baseline*, this baseline integrates a wide range of system information using a structured technical approach. It measures changes and adjustments to system design, supportability and force parameters and their task-level impacts on system MANPRINT and MPT requirements for informed and timely decision-making. This baseline with its analytic task-based thread to missions and costs can ensure that a resource- and cost-effective balance of Army personnel and training is available for system deployment and sustainment.

Mission-Centric MANPRINT Payoffs

Army acquisition program benefits to be gained through a mission-centric MANPRINT application are:

➢ Common operational mission-tasks thread based on a proven JCS methodology as the foundation for a MANPRINT program.

➢ Development of realistic system MANPRINT requirements and goals from validated Army missions and tasks.

➢ Accurate projections of both system end-state and incremental human resources for fielding system capabilities via task-based MANPRINT analyses.

➢ Enhanced human performance using an iterative MANPRINT analysis baseline for system tradeoff s against mission-tasks sets, programmatic changes and costs impacts.

➢ Real-time understanding of MANPRINT-related alternative and optimal solutions for total ownership costs throughout system life cycle.
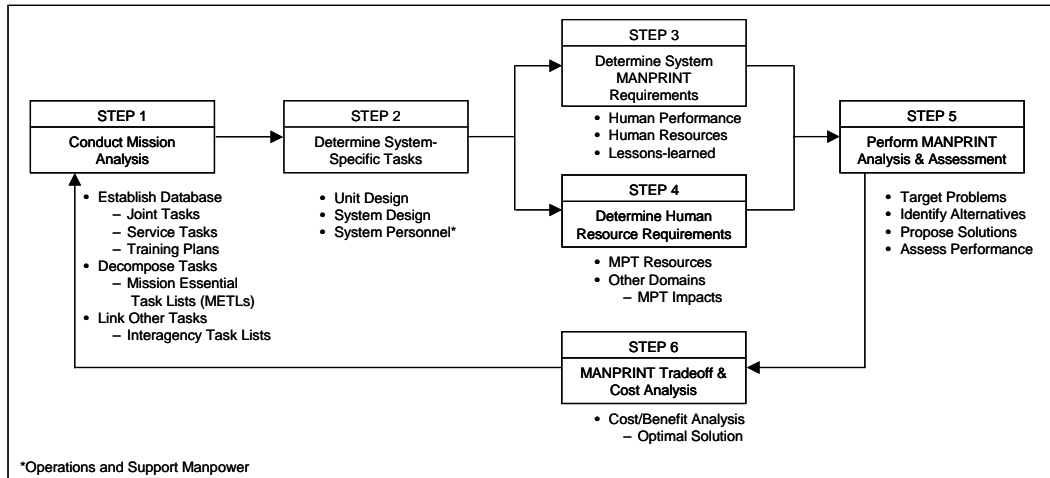
FIGURE 3. Mission-Centric MANPRINT Analysis Baseline

Summary

The DoD system acquisition process has an overarching requirement to *assess weapon system mission performance at the individual crew, unit and force levels.* For a more effective application of today's MANPRINT principles throughout system development and an evolving operational deployment schema, Army MANPRINT programs can be aligned with joint, service, force and system operational missions and tasks: *mission-centric MANPRINT.*

For MANPRINT practitioners, this task-driven concept could provide the means to expand the scope and value of the MANPRINT paradigm by leveraging proven MANPRINT and mission analytic tools and processes for use with Joint and Army operational forces. Thus, effectively extending the influence of MANPRINT to legacy systems, today's warfighting units, joint partners and ultimately operational readiness.

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Biographical Sketch

John Snow is an employee of Dynamics Research Corporation (DRC). He is a Senior Systems Analyst with over 20 years experience in the management and performance of MANPRINT and Manpower, Personnel and Training (MPT) analyses and assessments. Recent DoD acquisition systems supported include the Joint National Missile Defense and Army Comanche programs.

Meetings of Interest

AUSA Winter Symposium and Exhibition

3-5 March 2004

**Greater Ft. Lauderdale/Broward County
Convention Center
Ft. Lauderdale, FL**

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MANPRINT Training Schedule

MANPRINT ACTION OFFICER COURSE (MAOC)

CLASS	START DATE	END DATE	LOCATION
2004-001	26 Jan 2004	30 Jan 2004	ALMC, Fort Lee, VA
2004-702	23 Feb 2004	27 Feb 2004	Fort Bragg, NC
2004-703	03 May 2004	07 May 2004	Huntsville, AL
2004-704	07 Jun 2004	11 Jun 2004	Aberdeen Proving Ground, MD
2004-705	12 Jul 2004	16 Jul 2004	Fort Bliss, TX
2004-002	02 Aug 2004	06 Aug 2004	ALMC, Fort Lee, VA
2004-706	20 Sep 2004	24 Sep 2004	Houston, TX

MANPRINT TAILORED TRAINING (APPLICATIONS COURSE)

CLASS	START DATE	END DATE	LOCATION
2004-702	01 Dec 2003	03 Dec 2003	Aberdeen Proving Ground, MD
2004-703	12 Jan 2004	14 Jan 2004	Huntsville, AL
2004-704	22 Mar 2004	24 Mar 2004	Fort Rucker, AL
2004-705	05 April 2004	07 April 2004	Warren, MI
2004-001	20 Apr 2004	22 Apr 2004	ALMC, Fort Lee, VA
2004-706	24 May 2004	26 May 2004	Fort Belvoir, VA
2004-707	23 Aug 2004	25 Aug 2004	Warren, MI

(POC: Mr. Pat Wilson, COM (804) 765-4373, DSN 539-4373)

Did You Know?..........

➢ The MPT Domain Branch will release the Manpower, Personnel Capabilities and Training (MPT) Guide in October 2003 to all customers via Central Server, File Transfer Protocol (FTP) site and by Internet. Easy access will be available through the MANPRINT Website, www.manprint.army.mil. POC is Mr. Cliff Colee DSN 221-3758 or COM (703) 325-3758.

The Manpower, Personnel Capabilities and Training (MPT) Guide (formerly known as the MPT Tool) is a living MANPRINT interactive Guide designed specifically to focus on MPT domain issues in a system acquisition management framework. The Guide is designed to support Program Managers, MANPRINT Practitioners, and other MANPRINT customers identify and assess MPT issues and risks during the system acquisition phase. It can also be used by Program Managers and others to determine how well Manpower, Personnel Capabilities and Training requirements are accomplished prior to each Milestone Decision. This Guide can also be used as a resource for training MANPRINT action officers.

➢ The U.S. Army Logistics Management College has restructured the MANPRINT Action Officers Course to incorporate current DoD policy and guidance. The 5-day course is designed to provide a working knowledge and specific managerial skills to the student so that real and immediate improvements can be made in the management and integration of human performance considerations into the materiel acquisition process. The overall focus is on providing the information and skills necessary for DoD personnel to successfully perform his/her portion of the MANPRINT/Human Systems Integration program.

➢ The MANPRINT Directorate welcomes current MANPRINT-related news, information, and articles to use for publication in our MANPRINT Newsletter. Please contact Lynne Compton, lcompton@maxtc.com or Crystal Newsome, crystal.newsome @hqda.army.mil for more information and submission guidelines.

MANPRINT INFORMATION

Articles, comments, and suggestions are welcomed and are to be submitted through the MANPRINT Contractor: MANPRINT Newsletter, Maximum Technology Corporation, 4910 University Square, Suite 4, P.O. Box 11817, Huntsville, AL 35814-1817; COM (256) 864-7630, FAX (256) 722-2149, E-mail: MANPRINT@hqda.army.mil

MANPRINT Web Site: http://www.manprint.army.mil

POLICY: Department of the Army, G1, ATTN: DAPE-MR, 300 Army Pentagon, Washington, DC 20310-0300, DSN 225-5848, COM (703) 695-5848.

DIRECTORY OF DESIGN SUPPORT METHODS: Defense Technical Information Center–MATRIS Office, DTIC-AM, NAS NI Bldg, 1482, Box 357011, San Diego, CA 92135-7011, DSN 735-9414, COM (619) 545-9414, E-mail: ddsm@dticam.dtic.mil, and web site: http://dticam.dtic.mil/hsi/

MANPRINT DOMAIN POCs

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